AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A CMP apparatus for polishing a substrate to be polished by CMP, the CMP apparatus comprising:

a rotatable stage selectively holding a substrate to be polished;

a polishing head holding section that holds a polishing head equipped with a polishing pad over the stage;

a storage section that stores a replacement polishing head equipped with a polishing pad; ~~and~~

a polishing head replacement mechanism that replaces the polishing head held by the polishing head holding section with the replacement polishing head stored in the storage section;~~,~~

a pure water circulation system that circulates pure water at the storage section such that the polishing pad stored in the storage section remains wet; and

at least one of a mechanism that submerges the polishing pad in the storage section in pure water and a mechanism that sprays mist on the polishing pad in the storage section.

2. (Original) A CMP apparatus according to claim 1, wherein:

the storage section includes storage chambers that store replacement polishing pads; and

the storage chambers are mutually partitioned such that slurry and contaminants are prevented from crossing from one storage chamber to another storage chamber.

3. (Currently Amended) A CMP apparatus for polishing a substrate to be polished by CMP, the CMP apparatus comprising:

a plurality of polishing processing chambers disposed on a turntable;

a rotatable stage that is disposed in each of the polishing processing chambers and selectively holding a substrate to be polished;

a polishing head holding section that holds a polishing head equipped with a polishing pad over the stage;

a storage section that stores a replacement polishing head equipped with a polishing pad; ~~and~~

a polishing head replacement mechanism that replaces the polishing head held by the polishing head holding section with the replacement polishing head stored in the storage section;~~,~~ and

a slurry supply system that supplies slurry at a central section of the polishing pad of the polishing head that is held by the polishing head holding section, the slurry supply system including a plurality of slurry supply systems that supply slurry and a switching device that switches among the slurry supply systems;

wherein the polishing processing chambers are partitioned such that slurry and contaminants are prevented from crossing from one polishing processing chamber to another polishing processing chamber.

4. (Original) A CMP apparatus according to claim 3, further comprising:

a load-unload chamber that is disposed over the turntable for mounting and removing the substrate to be polished on and from the stage.

5. (Original) A CMP apparatus according to claim 3, wherein the polishing pad has a diameter smaller than a diameter of the substrate to be polished.

6-7. (Cancelled)

8. (Currently Amended) A CMP apparatus according to claim ~~7~~3, wherein the plurality of slurry supply systems includes a circulation system that circulates slurry in the slurry supply systems while the slurry is not being supplied to the polishing pad.

9. (Currently Amended) A CMP apparatus according to claim ~~7~~3, further comprising:

a pure water supply device that supplies pure water at a central section of the polishing pad of the polishing head that is held by the polishing head holding section.

10. (Original) A semiconductor device manufactured through the steps of polishing using the CMP apparatus recited in claim 3.

11. (Original) A method for manufacturing a semiconductor device comprising the steps of polishing using the CMP apparatus recited in claim 3.

12. (Currently Amended) A CMP polishing method using a CMP apparatus including a rotatable stage selectively holding a substrate to be polished, a polishing head holding section that holds a polishing head equipped with a polishing pad over the stage, a storage section that stores a replacement polishing head equipped with a polishing pad, ~~and~~ a polishing head replacement mechanism that replaces the polishing head held by the polishing head holding section with the replacement polishing head stored in the storage section, a pure water circulation system that circulates pure water at the storage section such that the polishing pad stored in the storage section remains wet, and at least one of a mechanism that submerges the polishing pad in the storage section in pure water and a mechanism that sprays mist on the polishing pad in the storage section, the CMP polishing method comprising the steps of:

submerging the polishing pad in the storage section in pure water;

circulating pure water at the storage section to maintain the polishing pad stored in the storage section wet;

spraying mist on the polishing pad in the storage section; and

polishing the substrate to be polished by holding the substrate to be polished on the stage, rotating the stage, and pressing the polishing pad against a polishing surface of the substrate to be polished while rotating the polishing head held by the polishing head holding section.

13. (Currently Amended) A CMP polishing method using a CMP apparatus for polishing a substrate to be polished by CMP, the CMP apparatus including a plurality of

polishing processing chambers disposed on a turntable, a rotatable stage that is disposed in each of the polishing processing chambers, and selectively holding a substrate to be polished, a polishing head holding section that holds a polishing head equipped with a polishing pad over the stage, a storage section that stores a replacement polishing head equipped with a polishing pad, ~~and~~ a polishing head replacement mechanism that replaces the polishing head held by the polishing head holding section with the replacement polishing head stored in the storage section, and a slurry supply system that supplies slurry at a central section of the polishing pad of the polishing head that is held by the polishing head holding section, the slurry supply system including a plurality of slurry supply systems that supply slurry and a switching device that switches among the slurry supply systems, wherein the polishing processing chambers are mutually partitioned such that slurry and contaminants are prevented from crossing from one polishing processing chamber to another polishing processing chamber, the CMP polishing method comprising the steps of:

supplying slurry at the central section of the polishing pad of the polishing head;

polishing a first substrate to be polished by holding the first substrate to be polished on the stage, rotating the stage, and pressing the polishing pad against a polishing surface of the first substrate to be polished while rotating the polishing head held by the polishing head holding section;

removing the first substrate to be polished from the stage upon completion of the polishing, replacing the polishing head held by the polishing head holding section with the replacement polishing head, holding a second substrate to be polished having a polishing object different from the first substrate to be polished on the stage, ~~and~~

supplying slurry at the central section of the polishing pad of the polishing head, and polishing the second substrate to be polished by rotating the stage, and pressing the polishing pad against a polishing surface of the second substrate to be polished while rotating the polishing head.

14. (Original) A semiconductor device manufactured through the steps of polishing using the CMP polishing method recited in claim 12.

15. (Original) A method for manufacturing a semiconductor device comprising the steps of polishing using the CMP polishing method recited in claim 12.

16. (Original) A CMP apparatus according to claim 1, wherein the polishing pad has a diameter smaller than a diameter of the substrate to be polished.

17. (Original) A CMP apparatus according to claim 1, further comprising:

a pure water circulation system that circulates pure water at the storage section such that the polishing pad stored in the storage section remains wet; and

at least one of a mechanism that submerges the polishing pad in the storage section in pure water and a mechanism that sprays mist on the polishing pad in the storage section.

18. (Original) A CMP apparatus according to claim 1, further comprising:

a slurry supply system that supplies slurry at a central section of the polishing pad of the polishing head that is held by the polishing head holding section, wherein the slurry supply system includes:

a plurality of slurry supply systems that supply slurry; and

a switching device that switches among the slurry supply systems.

19. (Original) A CMP apparatus according to claim 18, wherein the plurality of slurry supply systems includes a circulation system that circulates slurry in the slurry supply systems while the slurry is not being supplied to the polishing pad.

20. (Original) A CMP apparatus according to claim 18, further comprising:

a pure water supply device that supplies pure water at a central section of the polishing pad of the polishing head that is held by the polishing head holding section.

21. (Original) A semiconductor device manufactured through the steps of polishing using the CMP apparatus recited in claim 1.

22. (Original) A method for manufacturing a semiconductor device comprising the steps of polishing using the CMP apparatus recited in claim 1.

23. (Original) A semiconductor device manufactured through the steps of polishing using the CMP polishing method recited in claim 13.

24. (Original) A method for manufacturing a semiconductor device comprising the steps of polishing using the CMP polishing method recited in claim 13.